

Wildlife and Aquatic
Biological Evaluation and Biological Assessment
for
The Bullard's Bar Invasive Plant Treatment Project

Plumas National Forest, Feather River Ranger District

April 16, 2018

Project Determination Summary

There are 24 acres proposed for herbicide use on non-native plants. The proposed area is the wildlife and aquatic analysis area. The fair majority of acres are in a quarry of rocks that was once used in the 1960s for the purpose of building the New Bullards Bar Dam. In addition to the quarry there is approximately an acre located directly across (highway 8).

Species considered: federally listed California red-legged frog (*Rana draytonii*) and the Forest Service sensitive species the Bumble Bee (*B. occidentalis*).

Federally listed Threatened and Endangered Species

It is my determination that the direct spraying of herbicides on non-native plants will not affect federally listed species and or their designated critical habitat; therefore this action it ***is not likely to result in a trend toward federal listing or loss of viability.***

Forest Service Sensitive Species

It is my determination based on the type and degree of proposed activities this action ***is not likely to affect*** Forest Service sensitive species or their habitat.

Management Indicator Species (MIS)

It is my determination based on the type and degree of proposed activities within the analysis area the proposed action ***is not likely to affect*** MIS species and or their habitat.

Migratory Birds

It is my determination based on the type and degree of proposed activities within the analysis area the proposed action ***is not likely to affect*** migratory birds and or their habitat.

Determinations were based on the following information: familiarity with the project area; surveys; the Forest Service completed human health and ecological Herbicide Risk Assessment considers the use and evaluated the risk of specific herbicides to humans and other species in the environment; only those herbicides that have a risk assessment completed would be used; herbicide application procedures adheres strictly to application guidelines.

Introduction

The project initiation, description, and proposed treatment is a result of the Feather River Ranger District's Botanist Lawrence Janeway.

The purpose of the project is to treat six species of non-native invasive plants (NNIP) with herbicide on 24 acres. These six species are: rush skeletonweed (*Chondrilla juncea*), yellow star-thistle (*Centurea solstitialis*), Scotch broom (*Cytisus scoparius*), barbed goatgrass (*Aegilops triuncialis*), Italian thistle (*Carduus pycnocephalus*), and Medusa head (*Elymus caput-medusae*).

The purpose of this report is to evaluate and disclose the impacts of the proposed action on the habitat and to determine whether the proposed action would result in a trend toward listing or loss of viability for sensitive species, and to document effects on threatened or endangered species and/or their critical habitat as part of determining whether formal or informal consultation is needed.

This BA/BE report consists of both a Biological Assessment for federally listed wildlife species potentially occurring on the Plumas National Forest and a Biological Evaluation for Region 5 Sensitive Species (updated October 15, 2007). This BA/BE is prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act [19 U.S.C. 1536 (c), 50 CFR 402] and standards established in Forest Service Manual direction (FSM 2672.42).

Location of Proposed Action

The Bullards Bar Invasive Plant Treatment project area is in one of two quarry sites along Marysville Road in the vicinity of the New Bullards Bar Dam. Located on the "western quarry" site T. 18 N., R. 7 E., section 26, SE1/4, Mount Diablo Meridian, Yuba County, California elevation 2,400. Refer to Figure 1.

Purpose and Need

The purpose is to eradicate or control NNIP using a combination of chemical (herbicides) and manual treatments. The eradication of skeleton weed, yellow star thistle, Italian thistle, and scotch broom is expected. While barbed goat grass and Medusa head is expected to be controlled.

Herbicide Application Method

Herbicide application methods are limited to "select" (e.g. wicking, wiping, stem injection, and hack and squirt), and "directed spray" (use of backpack sprayer or hand held nozzle to aim application at specific target species), as permitted by the product label and project design standards. No broadcast or aerial herbicide applications will occur.

Manual treatments include digging, hand pulling, or tarping.

Only herbicide formulations (products) that have been registered with the EPA for rangeland, forest land, or aquatic use would be applied. The herbicide label is a legally binding document that provides specific direction on how and where to use herbicide. All herbicides would be used only as directed on the herbicide label.

By federal law, every herbicide must be registered with the Environmental Protection Agency and be labeled with proper use and warning information. In addition, all commercial applications are required to be done by a licensed pesticide applicator. Using the correct herbicide, at the proper rate, and at the

right time are important considerations. Refer to Table 1 for the list of chemicals, which chemical would be used on NNIP, acres treated, and the rate of application.

The Forest Service has completed human health and ecological risk assessments and can be found at this website (<http://www.fs.fed.us/foresthealth/pesticide/risk.shtml>). The assessments evaluate the risk of specific herbicides to humans and other species in the environment. Only those herbicides that have a risk assessment completed would be used; risk assessment can be completed by the Forest Service or other Federal agencies.

See the risk assessments in the project record for more information on these herbicides.

Table 1. List of chemicals, application rates, acreage for each plant, and pounds of chemical expected to be used.

Chemical	Upper Application Rate of Active Ingredient (lbs/acres)	Invasive Species and Acreage						Acres Treated at One Time	Pounds of Chemical Applied
		<i>Italian Thistle</i>	<i>Scotch Broom</i>	<i>Skeleton Weed</i>	<i>Yellow Star-Thistle</i>	<i>Barbed Goatgrass</i>	<i>Medusa head</i>		
		0.3 ac	1.9 ac	16.5 ac	16.8 ac	1.4 ac	0.5 ac		
Aminocyclopyrachlor	0.19			X				16.5	3.1
Aminopyralid	0.078	X		X	X			17.1	1.3
Chlorsulfuron	0.08			X				16.5	1.3
Clopyralid	0.2	X		X	X			17.1	3.4
Fluazifop-P-butyl	0.1					X	X	1.9	0.2
Glyphosate	2		X					1.9	3.8
Imazapyr	0.45					X	X	1.9	0.9
Triclopyr	1.12	X	X	X	X			17.7	19.8

Project Design Features

The spraying of herbicide will take place when soils are dry or a dry period when there is no chance of rain. This is the same as per the limiting operating period (LOP) for amphibians October 15 through March 1st, if a rain event should occur and last greater than 72 hours prior to October 15th activities then there should be no spraying of herbicide until a drying event. The dates and reason for delaying activities are included in C6.313 Limited Operating (1/84), or other language that is appropriate for the type of contract.

If threatened, endangered, or proposed species are listed or discovered within an area in which they may be adversely affected by activities, protection measures should be followed as recommended by a biologist, as appropriate for the species.

On-native invasive plants would be treated prior to flowering to ensure that Western bumblebees are not present on plants during herbicide application.

Stream Buffers

A buffer along the ephemeral stream is not necessary. Buffers are designed to protect a water course and the structure of riparian habitat along a watercourse. The ephemeral stream does not have the components that would require protection measures. Consideration was given to the type of herbicide, the substrate (the surface or material on or from which an organism lives, grows, or obtains its nourishment), and runoff potential.

In a situation where there were stream courses associated with this project the 2004 amendment to Sierra Nevada Framework defines two area of interest Riparian Conservation Areas (RCAs) and Critical Aquatic Refuges (CARs). The delineations for RCAs are from the Sierra Nevada Forest Plan Amendment (SNFPA) FEIS Record of Decision (USDA, 2004). Riparian areas would be protected in a manner consistent with the Riparian Conservation Objectives (RCO) and RCA designation and desired conditions.

Affected Environment and Environmental Consequences

Analysis Area

The wildlife and aquatic analysis area is the proposed treatment area.

Aquatic Environment

As a reference, the Bullard Bar Reservoir is approximately $\frac{3}{4}$ mile east of the project and Dobbins Creek is approximately 1 mile to the southwest. Local streams include North Yuba River (NYR), Burnt Bridge, Dobbins Creek, and Oregon Creek. The nearest is the NYR which is approximately $\frac{1}{4}$ mile away. . There are no perennial or intermittent streams occurring within the project boundary.

The ephemeral stream in the quarry that is dry for most of the year, and does not support aquatic life or have ground water influence (Fig. 2). An ephemeral stream is defined as having less flow than intermittent streams are typically shallow and have flowing water for brief period in response to rainfall. There is no riparian habitat which is typically associated with plant habitat communities along the margins of banks of streams, rivers, or lakes.

Terrestrial Environment

The existing condition consist of the quarry and an approximant 1 acre access highway 8. The quarry consists of grass over gravel, rock, and dirt. The land across highway 8 consist of conifers and bare ground.

Alternative A – No Action

Species Considered: Federal Listed Species/Forest Service Management Indicator Species (MIS)/Migratory Birds

Direct and Indirect Effects

No direct or indirect effects are expected on species or their habitat. The loss of important native vegetation is an indirect effect by allowing the currently infested non-native plants to increase and multiply to other areas.

Cumulative Effects

No cumulative effects are expected on species or their habitat. Cumulative effects would occur from the spread of non-native plants which would have a long term impact on native vegetation. The spraying of herbicides does not coincide with other projects of similar actions.

Alternative B - Proposed Action

Species Considered: Federal Listed Species/Forest Service Management Indicator Species (MIS)/Migratory Birds

Direct and Indirect Effects

Indicator Measure: Probability of direct spraying individuals or consuming herbicide contaminated prey and disturbance during application.

Examples of a direct effects includes immediate changes in habitat conditions and disturbance/harassment to individuals, including direct mortality, during project activities. Explanation of exposures of an animal to herbicide can be either primary exposure or secondary exposure. Primary exposure results when an individual consumes food or water that contains herbicide residues.

Direct disturbance, including mortality to individual wildlife or aquatic species is low to unlikely. The probability of consuming herbicide contaminated prey and disturbance during application is low to unlikely. Although avian or mammalian species might use the area for foraging it is highly unlikely they would come across a prey species that has significantly ingested chemicals as to harm the predator.

Examples of indirect effects include effects that occur later in time or beyond the treatment area of the project. For example, effects to a species prey base by secondary exposure when a predator or scavenger consumes an animal that contains herbicide residues. Indirect effects, including secondary exposure to individuals is low to unlikely.

Cumulative Effects

There would be no cumulative effects.

Species

The Federally Threatened: California Red-legged frog

Surveys/Site Visits

While the surveys include all amphibian species, the project area was surveyed in 2017 with emphasis on the federally threatened California Red-legged frog (CRLF). There are no ponds, lakes, perennial, or intermittent streams in the wildlife analysis area for this project.

There was a CRLF pollution is approximately 5 miles NE in the Little Oregon Creek vicinity. A colony of individuals were first seen in 1997 and the last individual to be seen was in 2001. The project is not within critical habitat. Other surveys in the area have not found CRLFs. The surveys included, Dobbins Creek, North Yuba River (NYR), Burnt Bridge, and Oregon Creek. There are no perennial or intermittent streams occurring within the project boundary.

The creek closest to the project is Dobbins Creek approximately 2 miles west where recent surveys (2016-2017) found no RLFs.

Direct and Indirect Effects

Indicator Measure: Probability of consuming herbicide contaminated prey and disturbance during application.

Direct and Indirect Effects

No direct or indirect effects expected.

Cumulative Effects

None.

Forest Service Sensitive Species: Bumble Bee

Direct and Indirect Effects

Indicator Measures: Habitat components modified, lost, or fragmented

Direct and Indirect Effects

Examples of direct effects include direct contact with herbicides through chemical spills or overspray, and indirect contact with herbicides through sprayed vegetation or contaminated water. Indirect effects include disturbance from equipment and people walking through habitat, and loss of floral resources.

Nonnative plants would be treated prior to flowering to ensure that Western bumblebees are not present on plants during herbicide application. There should be no direct contact or indirect disturbance from equipment.

Cumulative Effects

None.

Determination of Effects

There are no federally listed species in the wildlife analysis area. A list of threatened and endangered (T&E) species used for analysis of this project (the "Federal Endangered and Threatened Species that may be affected by Projects on the Plumas National Forest", was accessed via the USFWS county list web page (http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists_NF-action-page.cfm).

Federally Listed Species

It is my determination that the spraying of herbicides on non-native plants will not affect federally listed species and or their habitat.

Forest Service Sensitive Species, Management Indicator Species and Migratory Birds

It is my determination that the spraying of herbicides on non-native invasive plants will not affect species and or their habitat and not likely to lead toward a trend of federally listing.

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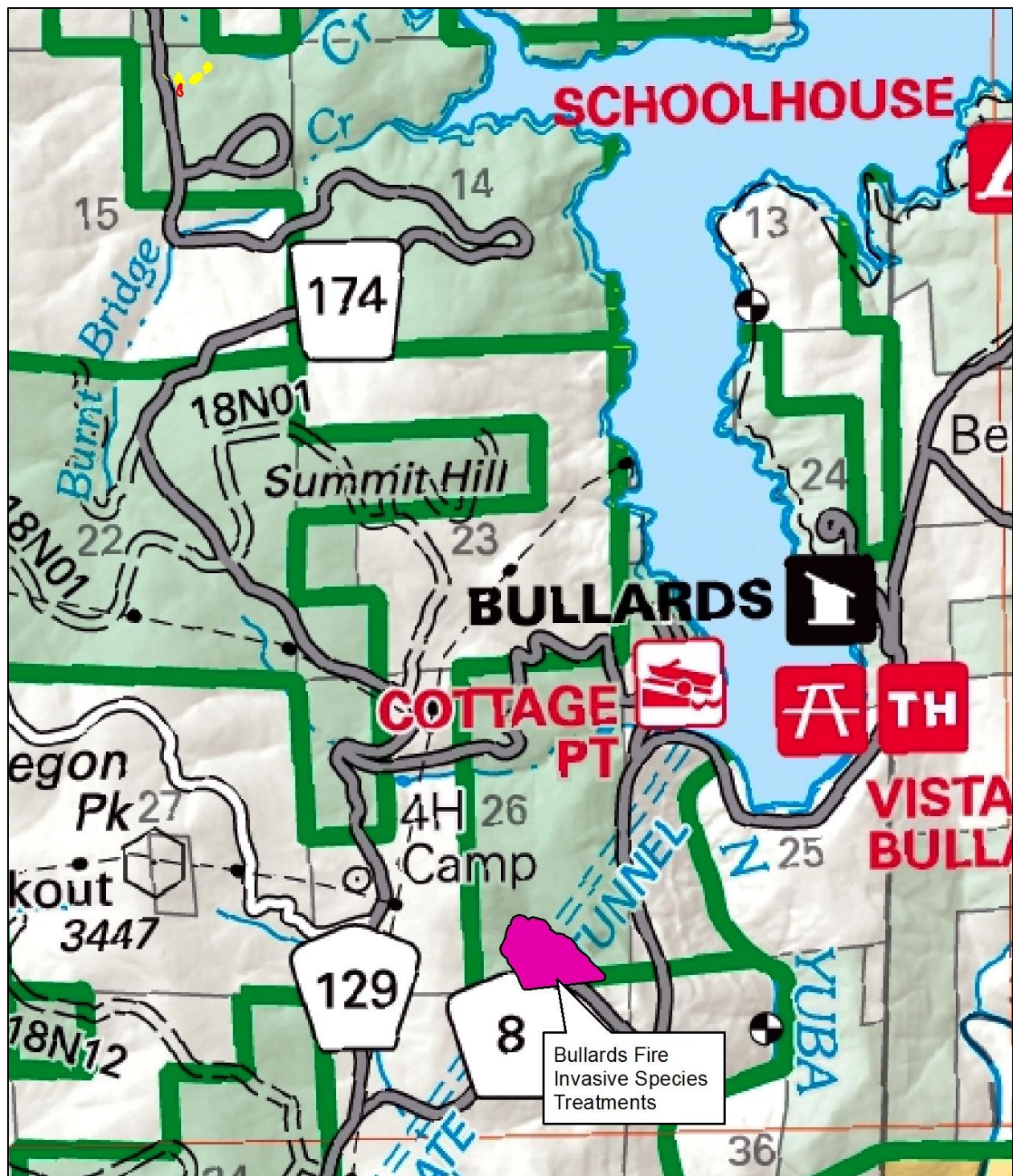


Figure 1. Location of Bullard's Invasive Species treatment.



Figure 2. Located on the “western quarry” site. Rocked channel is mapped as intermittent stream but it is an ephemeral stream. Note dense blackberry berms growing along the channel with willows at the lower end. There was no water in the channel and it does not support amphibian habitat (Muchowski 2017).